Installation and Customization Documentation

This section describes step by step how to install Entire Output Management for BS2000/OSD, OS/390 and VSE/ESA.

It covers the following topics:

Installation Jobs

The installation of Software AG products is performed by installation **jobs**.
These jobs are either created **manually** or generated by System Maintenance Aid (SMA).

For each step of the installation procedure described below, the job number of a job performing the respective task is indicated. This job number refers to an installation job generated by SMA. If you are not using SMA, an example installation job of the same number is provided in the job library on the Entire Output Management installation tape; you must adapt this example job to your requirements.

Note:
The job numbers on the tape are preceded by the product code (for example, NOMI060).

Using System Maintenance Aid

For information on using Software AG's System Maintenance Aid (SMA) for the installation process, refer to the **System Maintenance Aid Documentation**.

Prerequisites

Before you can install Entire Output Management, the following Software AG products must already be installed at your site:

- Adabas Version 6.2 or above is required;
- Natural Version 3.1.4 or above including the Software AG Editor component is required;
- Entire System Server Version 2.2.2 or above;
- Entire System Server for Unix Version 2.1.1.05 and above (optional);
- System Automation Tools Version 3.1.1 or above;
- Natural Security (optional); for UTM users under BS2000/OSD Natural Security is required;
- Entire Net-Work (optional, for multi-CPU support);
- Con-nect Version 3.1 or above (optional).

The installation procedure for Entire System Server is described in the **Entire System Server Reference Documentation**.

The installation procedure for System Automation Tools is described in the separate SAT 3.1.1 Installation and Customization Documentation.

Installation Tape

The installation tape contains the files listed in the table below.

The notation *nnn* in file names represents the version number of the product.

The sequence of the files is shown in the **Report of Tape Creation** which accompanies the installation tape.

- VSE/ESA
- OS/390
- BS2000/OSD

VSE/ESA

File Name	Contents
NOM*nnn*.LIBR	Entire Output Management Installation Jobs Entire Output Management Source and Load Library
NOM*nnn*.INPL	Entire Output Management System Libraries (Natural)
NOM*nnn*.ERRN	Entire Output Management Error Messages
NOM*nnn*.SYSF	Entire Output Management Data File (Adabas)
NOM*nnn*.SYS2	Entire Output Management Container File (Adabas)

OS/390

File Name	Contents
NOM*nnn*.JOBS	Entire Output Management Installation Jobs
NOM*nnn*.SRCE	Entire Output Management Source Library
NOM*nnn*.LOAD	Entire Output Management Load Library
NOM*nnn*.INPL	Entire Output Management System Libraries (Natural)
NOM*nnn*.SYSF	Entire Output Management Data File (Adabas)
NOM*nnn*.SYS2	Entire Output Management Container File
NOM*nnn*.ERRN	Entire Output Management Error Messages
....*	* Some files for the solution of certain SAGSIS problems maybe included on the installation tape. Please refer to the problem descriptions before applying them.

BS2000/OSD

File Name	Contents
NOM*nnn*.JOBS	Entire Output Management Installation Jobs
NOM*nnn*.SRCE	Entire Output Management Source Library
NOM*nnn*.PAMS	Entire Output Management Module Library
NOM*nnn*.INPL	Entire Output Management System Libraries (Natural)
NOM*nnn*.SYSF	Entire Output Management Data File (Adabas)
NOM*nnn*.SYS2	Entire Output Management Container File
NOM*nnn*.ERRN	Entire Output Management Error Messages
....*	* Some files for the solution of certain SAGSIS problems maybe included on the installation tape. Please refer to the problem descriptions before applying them.

Storage Requirements

- VSE/ESA
- OS/390
- BS2000/OSD

During installation, the following files are loaded from the installation tape:

VSE/ESA

File Name	Type	Space on 3380 Disk
NOM*nnn*.LIBR	SEQ	25 tracks
NOM*nnn*.INPL	SEQ	13 cylinders
NOM*nnn*.ERRN	SEQ	7 tracks
NOM*nnn*.SYSF	SEQ	2 tracks
NOM*nnn*.SYS2	SEQ	2 tracks

OS/390

File Name	Type	Space on 3390 Disk
NOM*nnn*.JOBS	PDS	2 tracks
NOM*nnn*.LOAD	PDS	37 tracks
NOM*nnn*.SRCE	PDS	13 tracks
NOM*nnn*.INPL	SEQ	13 cylinders
NOM*nnn*.ERRN	SEQ	7 tracks
NOM*nnn*.SYSF	SEQ	2 tracks
NOM*nnn*.SYS2	SEQ	2 tracks

BS2000/OSD

File Name	Type	Space on Disk
NOM*nnn*.JOBS	PAM	192 PAM pages
NOM*nnn*.MOD	PAM	24 PAM pages
NOM*nnn*.SRC	PAM	96 PAM pages
NOM*nnn*.INPL	SAM	9168 PAM pages
NOM*nnn*.ERRN	SAM	144 PAM pages
NOM*nnn*.SYSF	SAM	33 PAM pages
NOM*nnn*.SYS2	SAM	33 PAM pages

Copying the Tape Contents to Disk

- VSE/ESA
- OS/390
- BS2000/OSD

VSE/ESA

The sample JCS supplied on tape for the installation of Entire Output Management assumes one library (SAGLIB).

Copy the sublibraries containing the load and sample installation jobs from tape using the following JCS:


```
* $$ JOB JNM=RESTORE,CLASS=0
* $$     DISP=D,LDEST=*
* $$ LST CLASS=A,DISP=D
// JOB RESTORE
// ASSGN SYS005,IGN
// ASSGN SYS006,CUU,VOL=xxxxxx
// MTC REW,SYS006
// MTC FSF,SYS006,nn                 * For the value of nn, see the tape report
* *** Now process NOMnnnJ.LIBR - JOBS ***
// EXEC LIBR,PARM='MSHP'
 RESTORE SUB=(SAGLIB.NOMnnn:SAGLIB.NOMnnn -
         SAGLIB.NOMnnnJ:SAGLIB.NOMnnnJ) -
         TAPE=SYS006 -
         LIST=YES -
         REPLACE=YES
/*
/&
* $$ EOJ
```

The notation *nnn* represents the version number of the product.
The notation *xxxxxx* represents the volume serial number of the tape.

All further files will be used directly from tape by the installation jobs.

OS/390

If you are not using SMA, copy the job file NOMnnn.JOBS from tape to disk using the sample JCL below.

The following values must be supplied in the JCL:

- In the file names, replace *nnn* with the current version number of the files.
- With the SER parameter, replace *XXXXXX* with the volume serial number of the tape.
- With the LABEL parameter, replace *x* with the sequential number of the tape file (see Report of Tape Creation).
- With VOL=SER parameter, replace *YYYYYY* with the volume serial number of the disk pack.
- With the UNIT parameter, specify the device type being used.

```
//   JOB CARD
//V2COPY   EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=A
//IN1      DD DSN=NOMnnn.JOBS,DISP=OLD,UNIT=TAPE,
//            VOL=(,RETAIN,SER=XXXXXX),LABEL=(x,SL)
//OUT1     DD DSN=SAGLIB.NOMnnn.JOBS,DISP=(NEW,CATLG,DELETE),
//            UNIT=SYSDA,VOL=SER=YYYYYY,SPACE=(CYL,(1,1,10))
//SYSIN    DD *
 C I=IN1,O=OUT1
/*
```

Then adapt and run job NOMTAPE from the job file to copy the source and load libraries from tape to disk. The sample job directly uses the sequential files from tape.

BS2000/OSD

- Step 1
- Step 2
- Step 3

If you are not using SMA, copy the data sets from tape to disk using the procedure described below.

In this procedure, the following values must be supplied:

- In the data set names, replace *nnn* with specify the current version number of the data sets.
- Replace all *xxxxxx* with the volume serial number of the tape.

Step 1

Copy the job data set NOMnnn.JOBS from tape to disk using the BS2000/OSD utility PERCON or EDT.

If you use PERCON, issue the following commands:

```
/FILE NOMnnn.JOBS,VOL=xxxxxx,DEV=T9G -
/     ,STATE=FOREIGN,FSEQ=UNK,LINK=PCIN
/FILE P.NOMnnn,LINK=PCOUT
/EXEC PERCON
END
```

If you use EDT, issue the following commands:

```
/FILE NOMnnn.JOBS,VOL=xxxxxx,DEV=T9G -
/     ,STATE=FOREIGN,FSEQ=UNK,LINK=EDTSAM
/EXEC EDT
@ READ '/'
@ SY '/REL EDTSAM'
@ WRITE 'P.NOMnnn'
@ HALT
```

Step 2

Then issue the following command:

```
/CALL P.NOMnnn,PRODUCT=NOMnnn
```

A sample job library LIB.NOMnnn will be created from the procedure data set.

Step 3

Adapt job E.NOMTAPE from the sample job library.

Then issue the following command to run the job, which copies all data sets from tape to disk:

```
/E LIB.NOMnnn.JOBS(E.NOMTAPE)
```

Installation JCS / JCL

Step 1

NOM System File

If you are installing Entire Output Management for the first time, use the Adabas load utility (Job I050, Step 2800) to load the NOMnnn.SYSF file. The System File is in Version 5 format and contains a few examples and initializations.

If you are migrating from a previous version, refer to the subsection Migrating from Previous Versions.

When working with Container Files, load one or more files using NOMnnn.SYS2 with NUMREC=0 (Job I050, Step 2801). For more information on how to use container files, see the subsection Defining Container Files in the section System Administration of the Entire Output Management System Programmer's Documentation.

Beginning with EOM 2.1.1, the location of log data is no longer System File 1. Log data are written to a log file that belongs to SAT 3.1.1 installation. Load SAT*nnn*.SYSF according to the subsection Installation Procedure Step 1 in the section Installing System Automation Tools / Mainframe of the System Automation Tools Documentation and migrate your log data to the new location, see the subsection Migrating from Previous Versions.

Step 2

Scratch NOM Libraries

(Job I051, Step 2800)

If Entire Output Management has been installed before, scratch all objects from the SYSNOM, SYSNOMS, SYSNOMH1 and SYSNOMH2 libraries.

Step 3

Adapt Parameter Modules and Link Jobs for Subtask, Batch and Online Natural

Monitors of the SAT product family can run as either a Natural subtask or a Natural batch job. For further information, see the separate System Automation Tools Documentation, the section Installing System Automation Tools.

In addition to the specifications described in the separate System Automation Tools Installation Documentation, you must also adapt the following:

1. **Adapt the Subtask Natural Parameter Module (Job I060)**

   Add or change the following parameters in your NATPARM module, the NTFILE definitions can also be overridden by the dynamic parameter LFILE:

CSTATIC=(...,	ESFCLOS, ESFOPEN, ESFPURG, ESFREAD, ESFROUT, ESFSTAT, ESFWRIT, ...)	**1** **1** **1** **1** **1** **1** **1**	
NTFILE ID=206,DBID=<dbid>,FNR=<fnr>			The data base ID and file number of the Entire Output Management System File.
NTFILE ID=251,DBID=<dbid>,FNR=<fnr>			(optional; needed only if Con-nect is installed).
NTFILE ID=131,DBID=<dbid>,FNR=<fnr>			The data base ID and file number of the SAT System file (mandatory).
NTSORT WRKSIZE=30,STORAGE=MAIN,EXT=OFF			NTSORT is a NATPARM module macro.

1 Optional - needed only if CMA-SPOOL is installed.

2. **Link Natural Subtask Module**

VSE/ESA:

Take the link job as described in the separate SAT311 Installation Documentation and adapt the following:

- Include the library definitions for NOMLIB in your LNKEDT procedure:
  (LIBDEF chain).

```
. . .
INCLUDE NOMCOMPR
INCLUDE NOMPUT[1]
INCLUDE NOMADA[1]
. . .
```

1 Only if printing from Natural Advanced Facilities to a printer of type NOM is desired. Assemble NOMADA to meet your requirements first. See Using NOMPUT.

Note:
The Natural SORT statement may optionally invoke an external SORT program that carries out the actual sorting. An external SORT program is used if the Natural profile parameter EXT of the macro NTSORT is set to **on**. Natural supports all external SORT programs that comply with the SORT interface documented in relevant IBM manuals (for VSE/ESA).
For further information, refer to the **Natural Operations Documentation**, the section **Operating Natural - General Information**, subsection **Support of External SORT - Special Considerations for VSE/ESA**.

OS/390:

Take the link job as described in the separate SAT311 Installation Documentation and adapt the following libraries for the linkage:

//NOMLIB DD DISP=SHR,DSN=SAGLIB.NOM*nnn*.LOAD	Supplied Entire Output Management Load Library.
//CMALIB DD DISP=SHR,DSN=CMASPOOL.LOAD (optional)	Supplied CMA-SPOOL Load Library.

The notation *nnn* in file names represents the version number of the product.

INCLUDE	NOMLIB(NOMCOMPR)	Compression	1
INCLUDE	NOMLIB(NOMPUT)	Install NAF printer type 'NOM'	2
INCLUDE	NOMLIB(NOMADA)	Install NAF printer type 'NOM'	2
INCLUDE	CMALIB(AESFPRIV)	(optional - only if CMA-SPOOL installed)	

1 If you have a shared nucleus, omit this statement here and add it to the link job of your shared nucleus.

2 Only if printing from Natural Advanced Facilities to a printer of type NOM is desired. Assemble NOMADA to meet your requirements first. See Using NOMPUT.

BS2000/OSD:

Take the link job as described in the separate SAT311 Installation Documentation and adapt the following libraries for the linkage:

- Use the library NOMnnn.MOD for the linkage.

```
INCLUDE NOMCOMPR
INCLUDE NOMPUT[1]
INCLUDE NOMADA[1]
```

1 Only if printing from Natural Advanced Facilities to a printer of type NOM is desired. Assemble NOMADA to meet your requirements first. See Using NOMPUT.

3. **Adapt the Batch Natural Parameter Module (Job I060)**

Add or change the following parameters in your NATPARM module:

CSTATIC=(...,	ESFCLOS,[1] ESFOPEN,[1] ESFPURG,[1] ESFREAD,[1] ESFROUT,[1] ESFSTAT,[1] ESFWRIT,[1] ...)	
NTFILE ID=206,DBID=<dbid>,FNR=<fnr>		The data base ID and file number of the Entire Output Management System File.
NTFILE ID=251,DBID=<dbid>,FNR=<fnr>		(optional; needed only if Con-nect is installed).
NTSORT WRKSIZE=30,STORAGE=MAIN,EXT=OFF		NTSORT is a NATPARM module macro.

1 Optional - needed only if CMA-SPOOL is installed.

4. **Link the Natural Batch Module**

Take the link job as described in the separate SAT311 Installation Documentation and adapt the following:

VSE/ESA:

- Include the library definitions for NOMLIB in your LNKEDT procedure: (LIBDEF chain).

```
...
INCLUDE NOMCOMPR[1]
INCLUDE EOMVOLID
INCLUDE EOMSPL
INCLUDE NOMPUT[1]
INCLUDE NOMADA[1]
...
```

1 Only if printing from Natural Advanced Facilities to a printer of type NOM is desired. Assemble NOMADA to meet your requirements first. See Using NOMPUT.

OS/390:

- Take the link job as described in the separate SAT311 Installation Documentation and adapt the following libraries for the linkage:

//NOMLIB DD
DISP=SHR,DSN=SAGLIB.NOM*nnn*.LOAD
	Supplied Entire Output Management Load Library.

The notation *nnn* in file names represents the version number of the product.

INCLUDE NOMLIB(NOMPUT)	Install NAF printer type 'NOM'	**2**
INCLUDE NOMLIB(NOMADA)	Install NAF printer type 'NOM'	**2**
INCLUDE NOMLIB(NOMCOMPR)	Compression	**1**

1 If you have a shared nucleus, omit this statement here and add it to the link job of your shared nucleus.

2 Only if printing from Natural Advanced Facilities to a printer of type NOM is desired. Assemble NOMADA to meet your requirements first. See Using NOMPUT.

BS2000/OSD:

Take the link job as described in the separate SAT311 Installation Documentation and adapt the following libraries for the linkage:

- Use the library NOMnnn.MOD for the linkage.

```
INCLUDE NOMCOMPR
INCLUDE EOMTFT
INCLUDE NOMPUT[2]
INCLUDE NOMADA[2]
```

2 Only if printing from Natural Advanced Facilities to a printer of type NOM is desired. Assemble NOMADA to meet your requirements first. See Using NOMPUT.

5. **Adapt the Online Natural Parameter Module (Job I080)**

Add or change the following parameters in your NATPARM module, the NTFILE definitions can also be overridden by dynamic parameter LFILE:

NTFILE ID=206,DBID=<dbid>,FNR=<fnr>	The data base ID and file number of the Entire Output Management System File.
NTFILE ID=251,DBID=<dbid>,FNR=<fnr>	(optional; needed only if Con-nect is installed).
NTFILE ID=131,DBID=<dbid>,FNR=<fnr>	The data base ID and file number of the SAT System file (mandatory)
NTSORT WRKSIZE=30,STORAGE=MAIN,EXT=OFF	NTSORT is a NATPARM module macro.

6. **Link the Online Natural Module**

Take the link job as described in the separate SAT311 Installation Documentation and adapt the following:

VSE/ESA:

- Include the library definitions for NOMLIB in your LNKEDT procedure: (LIBDEF chain).

```
...
INCLUDE NOMCOMPR
INCLUDE EOMTFT
INCLUDE NOMPUT[2]
INCLUDE NOMADA[2]
...
```

[2] Only if printing from Natural Advanced Facilities to a printer of type NOM is desired. Assemble NOMADA to meet your requirements first. See Using NOMPUT.

OS/390:

- Take the link job as described in the separate SAT311 Installation Documentation and adapt the following libraries for the linkage:

//NOMLIB DD DISP=SHR,DSN=SAGLIB.NOM*nnn*.LOAD	Supplied Entire Output Management Load Library.

The notation *nnn* in file names represents the version number of the product.

INCLUDE NOMLIB(NOMPUT)	Install NAF printer type 'NOM'	[2]
INCLUDE NOMLIB(NOMADA)	Install NAF printer type 'NOM'	[2]
INCLUDE NOMLIB(NOMCOMR)	Compression	[1]

[1] If you have a shared nucleus, omit this statement here and add it to the link job of your shared nucleus.

[2] Only if printing from Natural Advanced Facilities to a printer of type NOM is desired. Assemble NOMADA to meet your requirements first. See Using NOMPUT.

Note:
The Natural SORT Statement may optionally invoke an external SORT program that carries out the actual sorting.
An external SORT program is used if the Natural profile parameter EXT of the macro NTSORT is set to **on**.
Natural supports all external SORT programs that comply with the SORT interface documented in relevant IBM manuals (for OS/390).
For further information, refer to the **Natural Operations Documentation**, the section **Operating**

Natural - General Information, subsection **Support of External SORT - Special Considerations for OS/390**.

BS2000/OSD:

Take the link job as described in the separate SAT311 Installation Documentation and adapt the following libraries for the linkage:

- Use the library NOM*nnn*.MOD for the linkage (reentrant part of Natural).

INCLUDE NOMLIB(NOMPUT)	Install NAF printer type 'NOM'	[2]
INCLUDE NOMLIB(NOMADA)	Install NAF printer type 'NOM'	[2]
INCLUDE NOMCOMPR		

Note:
The Natural SORT statement may optionally invoke an external SORT program that carries out the actual sorting. An external SORT program is used if the Natural profile parameter EXT of the macro NTSORT is set to **on**. Natural supports all external SORT programs that comply with the SORT interface documented in relevant Siemens manuals (for BS2000/OSD).
For further information, refer to the **Natural Operations Documentation**, the section **Operating Natural - General Information**, subsection **Support of External SORT - Special Considerations for BS2000/OSD**.

[2] Only if printing from Natural Advanced Facilities to a printer of type NOM is desired. Assemble NOMADA to meet your requirements first. See Using NOMPUT.

Step 4

Load the INPL File and ERRN Files

(Job I061, Steps 2800 and 2802)

1. Load the INPL file. The following libraries are loaded:

Library	File	Contents
SYSNOM	FNAT	Entire Output Management application
SYSNOMH1	FNAT	Entire Output Management help system (English)
SYSNOMH2	FNAT	Entire Output Management help system (German)
SYSNOMS	FNAT	JCL skeletons and separator examples

2. Load the Entire Output Management error messages file (file NOMnnn.ERRN) using the ERRLODUS utility in Step 2802.

Step 5

Using Unix or Windows Platforms as External Spooling System Source

If Unix or Windows platforms are to be used as external spooling system source, Entire System Server for Unix has to be installed on each Unix/Windows system. For further details, see the section Installation and Operations of Entire System Server / UNIX and Windows in the System Automation Tools Documentation.

Adapting to Existing Environment

Step 1

Create a User Library

The SYSNOMS library contains examples of Separator Pages for Reports and Bundles. It also contains job skeletons which must be modified to reflect the site's special requirements. Since this library will be replaced with future versions, the SYSNOMS library must be copied to SYSNOMU where the changes can be made.

> **Note:**
> Parameter areas UEX-P (for separation exits) and P-UEXIT (for printing exits). **Always copy these two members with REPLACE option to the SYSNOMU library.**

Step 2

Modify the Job Skeletons

The following tasks require job skeletons which must be adapted to your site's requirements. You should adapt the sources in the SYSNOMU library which are specified in the Source column and make them available under the Target name:

Task	Environment	Source	Target
ARCHIVE	VSE/ESA Tape	JARCVTAP	JARCSKEL
ARCHIVE	VSE/ESA with DYNAM-T	JARCVCAT	JARCSKEL
ARCHIVE	OS/390 Tape	JARCMTAP	JARCSKEL
ARCHIVE	OS/390 GDG or predefined Disk VOLSERs	JARCMDSK	JARCSKEL
ARCHIVE	OS/390, SMS	JARCMSMS	JARCSKEL
ARCHIVE	BS2000/OSD Tape	JARCBTAP	JARCSKEL
ARCHIVE	BS2000/OSD with job variables	JARCBTJV	JARCSKEL
REVIVE	VSE/ESA Tape	JREVVTAP	JREVSKEL
REVIVE	VSE/ESA with DYNAM-T	JREVVCAT	JREVSKEL
REVIVE	OS/390 Tape	JREVMTAP	JREVSKEL
REVIVE	OS/390 GDG or predefined Disk VOLSERs or SMS	JREVMDSK	JREVSKEL
REVIVE	BS2000/OSD Tape	JREVBTAP	JREVSKEL
REVIVE	BS2000/OSD with job variables	JREVBTJV	JREVSKEL
CONDENSE	VSE/ESA Tape	JCDNVTAP	JCDNSKEL
CONDENSE	VSE/ESA with DYNAM-T	JCDNVCAT	JCDNSKEL
CONDENSE	OS/390 Tape	JCDNMTAP	JCDNSKEL
CONDENSE	OS/390 GDG or predefined Disk VOLSERs	JCDNMDSK	JCDNSKEL
CONDENSE	OS/390, SMS	JCDNMSMS	JCDNSKEL
CONDENSE	BS2000/OSD Tape	JCDNBTAP	JCDNSKEL
CONDENSE	BS2000/OSD with job variables	JCDNBTJV	JCDNSKEL
PRINT	POWER	SYSPRPWR	SYSPRPWR or user-defined
PRINT	VSE/ESA Tape	TAPEVSE	TAPEVSE or user-defined
PRINT	JES	SYSPRJES	SYSPRJES or user-defined
PRINT	OS/390 Disk	DISKMVS	DISKMVS or user-defined
PRINT	OS/390 Tape	TAPEMVS	TAPEMVS or user-defined
PRINT	BS2000/OSD	SYSPRBS2	SYSPRBS2 or user-defined
PRINT	BS2000/OSD with job variables	SYSPRBJV	SYSPRBJV or user-defined

Step 3

VTAM Definitions

To enable Entire Output Management to print to VTAM printers, add the definition from the member NOMVTAM in the Entire Output Management source library to your SYS1.VTAMLST library and activate it.
If your SYS1.VTAMLST already contains a definition for Entire System Server, include only the definition for Entire Output Management in it.

In the Entire System Server parameters assign the value for SPOOLACB as defined in your SYS1.VTAMLST.

Step 4

Entire System Server Parameters

To activate the common data pool, assign a value to the CDATALEN parameter of at least 1.

Natural Security Definitions

- Applications
- User

If Natural Security is installed at your site, you must create the following definitions:

Applications

Application	Description	with STEPLIBs
SYSNOM	Entire Output Management online application.	SYSEXT SYSSAT SYSNOMU SYSNOMS SYSSEC (optional) SYSCNT2 + any other library containing User Routines (optional)
SYSNOMH1	Entire Output Management help system (English)	-
SYSNOMH2	Entire Output Management help system (German)	-
SYSNOMS	JCL skeletons and separator examples.	-
SYSNOMU	User copy of SYSNOMS library.	-

User

Define the Natural Security user representing the Entire Output Management Server as **person** with user ID and password identical to <NSCUSER> and <NSCPSWD> parameters taken from the main member SATP*nnn*.

You can use one user ID for all or different user IDs for each server type. For more information, see the example for SAT parameters.

Note:
Natural Security requires a change of password, if a newly defined user logs on. Use this user ID to log on online to the system and change the password once.

NOM in a Non-security Environment

- Online
- Subtask/Batch

Online

If Natural Security is not installed at your site, the following STEPLIBs are automatically assigned to SYSNOM:

SYSSAT	
SYSCNT2	(optional)
SYSEXT	
SYSLIB	
SYSLIBS	
SYSNOMU	(if used)
SYSNOMS	

Subtask/Batch

If Natural Security is not installed at your site, the following STEPLIBs are automatically assigned to SYSNOM:

SYSSAT

For subtask/batch environments you must define further STEPLIBs in the appropriate SATP*nnn* member in SYSSATU:

```
<prefix> SATENV STEPLIB1=(SYSNOMU,[dbid],[fnr],[CIPHER],[password])
<prefix> SATENV STEPLIB2=(SYSNOMS,[dbid],[fnr],[CIPHER],[password])
<prefix> SATENV STEPLIB3=(SYSEXT,[dbid],[fnr],[CIPHER],[password])
<prefix> SATENV STEPLIB4=(SYSLIB,[dbid],[fnr],[CIPHER],[password])
<prefix> SATENV STEPLIB5=(SYSLIBS,[dbid],[fnr],[CIPHER],[password])
<prefix> SATENV STEPLIB6=(SYSCNT2,[dbid],[fnr],[CIPHER],[password])
```

If this library is used to keep skeletons and examples of separator pages and user exits, SYSNOMU is required and SYSCNT2 is optional.

Define Environment for NOM Server

- General Layout of a Parameter Block
- Parameter Blocks and Parameters for NOM
- Subtask/Batch

See also the subsection Defining SAT, Natural and Product Parameters in the separate SAT311 Installation Documentation.

For each Entire Output Management Server you must define the run-time environment in one or more Natural members in the SAT user library SYSSATU.

If you want to run various Entire Output Management Servers under different Entire System Server nodes *nnn*, you must provide startup parameters at least in the related ’main’ members. These must conform to the following naming convention: SATP*nnn*. In addition, you can provide further Entire Output Management-specific parameters in a second member, whose name must not match the naming convention for the ’main’ members.

General Layout of a Parameter Block

```
<Prefix> <block-identifier> [<keyword>=<value>,...]
```

where:

Parameter	Description
<Prefix>	SAT or compressed **product code + prefix** as specified in the SATSTART instruction.
<block-identifier>	SATENV/NATENV/SATSTART or product block identifier.
[<keyword>=<value>,...]	Block-specific parameter.

Parameter Blocks and Parameters for NOM

- Mandatory
- Optional

Mandatory

Parameter Block	Parameter	Description
SATENV	NSC=YES/NO	Indicates whether Natural Security is installed or not.
	NSCUSER=	If Natural Security is installed, this is the user ID for logging on to it.
	NSCPSWD=	Password for logging on to Natural Security.
	ESYUSER=	User ID for logging on to Entire System Server, if it is installed and an interface to an external security system is activated.
	NATTASK=	Name of the Natural subtask module for starting a server as a subtask.
SATSTART	SATVERS=31	Entire Output Management Server startup program requires SAT version 3.1.
	PRODUCT=NOM	3-byte product code.
	PREFIX=	PRODUCT and PREFIX are compressed into a prefix which identifies the Server-specific parameters.
	TYPE=SUBTASK/BATCH	Entire Output Management Servers are always started as subtasks.
	APPLIB=SYSNOM	Name of the Natural library where Entire Output Management Server is installed.
	SERVSYSF=	Pointer to the Entire Output Management System File (must be unique within all SATSTART instructions of this node).
NOMENV	BS2USER=	BS2000/OSD user ID under which the Monitor, Archive, Revive and Condense jobs are submitted. Default: ESYUSER
	ETID=*	Generate unique ETIDs for tasks.
	ETIDPREF=	6-byte prefix for ETIDs.
NATENV	LFILE=(206,<NOMSYSF1-DBID>,<NOMSYSF1-FNR>) [1,2,3] or LFILE=(131,<SATSYSF-DBID>,<SATSYSF-FNR>)	

[1] Pointer to Entire Output Management System File 1.

[2] These pointers can be set either in the common NATPARM module created for the SAT products or in a Natural parameter profile indicated by the Natural parameter PROFILE.

[3] Make sure that this pointer coincides with the pointer to the Entire Output Management System File 1 provided with the SERVSYSF parameter in the SATSTART block.

Optional

- Example

Furthermore, you can overwrite the SATENV and NATENV parameters with Entire Output Management-specific or even Entire Output Management-subtask-specific assignments. The naming convention for the prefix which identifies the parameter block is:

<Prefix> = NOM + <PREFIX> + (PRT for Print Task) (ARC for Archive Task) (REV for Revive Task)

Parameter Block	Parameter
SATSTART	MEMBER= [1]

[1] You can specify a member where Entire Output Management-specific parameters are located.

Example

Contents of the 'Main' Member for Node 148 - SATP148 in SYSSATU

The member SATP148 in SYSSAT provides an example of a 'main' member. You can take this as the basis for your own member: just copy it to SYSSATU and adapt it.

In the example below it is assumed that you are running three products of the SAT product family (Entire Event Management, Entire Output Management and Entire Operations) as subtasks on Node 148.

SAT	SATENV	NATTASK=SAT311ST, NSC=YES, NSCUSER=SATMON, NSCPSWD=SATMON	**1**
NOM211PRT	SATENV	NSCUSER=NOMPRT NSCPSWD=NOMPRT	**2**
NOM211ARC	SATENV	NSCUSER=NOMARC NSCPSWD=NOMARC	**2**
NOM211REV	SATENV	NSCUSER=NOMREV NSCPSWD=NOMREV	**2**
SAT	NATENV	DU=OFF,PROFILE=SATMON	**3**
SAT	SATSTART	SATVERS=31, PRODUCT=NOM, PREFIX=211, TYPE=SUBTASK, APPLIB=SYSNOM, SERVSYSF=(88,51)	**4**
SAT	SATSTART	SATVERS=23, PRODUCT=NOP, PREFIX=321, TYPE=SUBTASK, APPLIB=SYSEOR, SERVSYSF=(88,52)	**5**
SAT	SATSTART	SATVERS=23, PRODUCT=NCL, PREFIX=212, TYPE=SUBTASK, APPLIB=SYSNCLSV, SERVSYSF=(88,54)	**6**

1 Sets the SAT defaults for all SAT products, here: Entire Event Management, Entire Operations and Entire Output Management.

2 Indicates that a separate user ID/password can be used for Entire Output Management’s PRINT, ARCHIVE or REVIVE task.

3 Sets the Natural defaults for all SAT products: the Natural profile parameters are provided in the profile SATMON.

4 Specifies that the server for Entire Output Management 2.1.1 should be started as a subtask.

5 Specifies that the server for Entire Operations 3.2.1 should be started as a subtask.

6 Specifies that the server for Entire Event Management 2.1.2 should be started as a subtask.

Migrating from Previous Versions

Migrations from versions earlier than 1.3.5 are not supported.

1. Restart the Entire System Server node and ensure that the Entire Output Management Monitor is inactive.
2. Migration from NOM 1.3.5 only:
   - Convert Entire Output Management system file to get a NOM 1.4.1 formatted system file. Use Job I082, Step 2800.
   - Invert Super Descriptor L9 using Job I082, Step 2801.
3. Convert NOM 1.4.1 formatted system file to NOM 2.1.1 format using the following jobs in the given order:
   - **OS/390 and VSE/ESA:**
     Job I082, Step 2802: Change field lengths (ADADBS Change)
     Job I082, Step 2803: Release Super Descriptors (ADADBS Release)
     Job I082, Step 2804: Invert new Super Descriptors (ADAINV)
     Job I082, Step 2805: Add new fields (ADADBS Newfield)
   - **BS2000/OSD:**
     Job I082, Step 2802: Change field lengths (ADADBS Change 1)
     Job I082, Step 2803: Change field lengths (ADADBS Change 2)
     Job I082, Step 2804: Release Super Descriptors (ADADBS Release)
     Job I082, Step 2805: Invert new Super Descriptors (ADAINV)
     Job I082, Step 2806: Add new fields (ADADBS Newfield)
4. Run migration program MIG141 (Job I200, Step 2800) to move existing NOM log data to the SAT system file.

Starting NOM for the First Time

Before you start the subtask Monitor for the first time, log on to the SYSNOM library:

Then restart the Entire Output Management Monitor.

1. **Execute the INSTALL Program**

   Be certain that the Entire System Server node under which the Monitor runs is active.

   The INSTALL program adds the first user ID, modifies some example definitions and asks you to specify various Entire Output Management parameters. When you have successfully completed this installation procedure, the Entire Output Management Main Menu appears on your screen.

2. **Online Start of Entire Output Management Monitor**

   Enter START MONITOR in the Entire Output Management command line and press Enter.

3. **Automatic Start of Entire Output Management Monitor**

   For information on how to automatically start the Entire Output Management Monitor when bringing up Entire System Server, see the subsection AUTO-START in the separate SAT311 Installation Documentation.

Installation Verification

To verify that Entire Output Management has been installed correctly, proceed as follows:

1. Check the environment defined for Entire Output Management:
   - Verify the startup parameters defined in the library SYSSATU.
     - Logon to the library SYSSATU where you keep your master definitions for all servers of the SAT family.
     - Check that the SAT*nnn* entry in the member SATDIR points to the correct FNAT for the application SYSSAT.
     - Check member SATP*nnn* for the SATSTART entry with PRODUCT=NOM. The TYPE parameter should have the value SUBTASK; the APPLLIB parameter must have the value SYSNOM, and the SERVSYSF parameter must point to the correct Entire Output Management System File where the

object definitions are kept.
- Check member SATP*nnn* for the SATENV parameter NATTASK. The value in effect for Entire Output Management must indicate the correct Natural subtask module.
  This Natural module must be correctly linked, marked REENTERABLE and REUSABLE, and accessible in the run-time environment of the Entire System Server node *nnn*.
- Check the member SATP*nnn* for the SATENV parameters NSCUSER, NSCPSWD and ESYUSER. If you use Natural Security, <NSCUSER> must be defined as user and must have access to the libraries SYSNOM and SYSNOMU.
  If Entire System Server is running with security, (i.e.: SECURITY<>NONE), the user ID indicated by <ESYUSER> must be defined in the external security system and have sufficient authorization.

- Verify the Monitor Defaults:
  - Log on to the library SYSNOM and invoke the MENU program.
  - Enter the direct command 8.1. On the Default Definition Menu select option 1 to verify that System Default parameters DBID and FNR parameters point to the correct Entire Output Management System File.
  - Return to the menu by pressing PF3, and then selecting Option 2 to verify Monitor Defaults:
    - node, batch module and system server jobname should be correct;
    - at least 1 printer task should be specified;
    - at least 1 output class reserved for Entire Output Management is specified (OS/390/VSE/ESA); (**Note:** For JES3 these classes must be defined as HOLD=EXTWTR)
    - temporary class is specified;
    - a reserved virtual printer must be specified (BS2000/OSD).

2. Start the Entire Output Management Server automatically with Entire System Server.

   If the Entire System Server is active, proceed with step 3, below, to start the Entire Output Management Server online.

   If the SATSTART block for the Entire Output Management Server in the SYSSATU member SATP*nnn* is provided correctly, the Server is started automatically with the Entire System Server node *nnn*.
   - Start Entire System Server node *nnn*.
     - The successful start of the Entire System Server is indicated by the console message:
       Entire System ServerIS READY - X-COM NODE *nnn* IS INITIALIZED
     - The successful start of the Entire Output Management Server
       is indicated in the NOM log (direct command DLOG MON):

```
NOM1522 Monitor logged on to NPR UserId = NOMMON.
NOM1510 Monitor initialization completed successfully.
NOM1524 Number of Printer Tasks 2.
NOM1525 Printer task Type ..... SUBTASK.
NOM1503 Monitor minimum wait .. 30.
NOM1504 Monitor maximum wait .. 30 .
NOM1505 Monitor increment ..... 5.
NOM1506 Monitor node .......... 144.
NOM1507 Monitor DBID .......... 9.
NOM1508 Monitor FNR ........... 141.
NOM1527 Operating System Type . MVS/ESA.
NOM1528 Spool Type ............ JES2.
NOM1509 Start monitor initialization.
NOM1511 Monitor startup.
```

   - If this sequence does not appear after a while:
     - Check the SYSOUT data sets of the Entire System Server node, if it is running under the MVS/XA or MVS/ESA or OS/390 operating systems. Check the LST data set of the Entire System Server node, if it is running under a VSE/ESA operating system.
     - If the Entire Output Management Server is running under BS2000/OSD, check the SYSLST protocol files matching the following naming convention - the file name must contain the substring:

`L.NOM`*xxnnn*

where *xx* stands for the Entire Output Management subtask and *nnn* for the server number.
xx = XT for the Main Task and 02-05 for subtasks

- Proceed with Step 4.

3. Start the Entire Output Management Server online.
   - In the Entire Output Management online system, type the direct command START MON and press Enter. The Monitor Management screen appears:

```
  15:42:43             **** Entire Output Management ****            10/06/1999
 User ID GHH                 - Monitor Management -

                                                Status  Closed
                                                    at  15:42:29  10.06.1999
    S Start Monitor
    C Close Monitor
    L Display Monitor Log

    P Purge Monitor Buffer Pool
    E Purge a single Buffer Pool Entry


              +-------------------------------------------------+
              !   Monitor Node ........ 144                     !
              !   Minimum Wait ........ 30__       (in seconds) !
              !   Maximum Wait ........ 300_       (in seconds) !
              !   Wait Increment ...... 5___       (in seconds) !
              !   Current Wait ........ 135        (in seconds) !
              +-------------------------------------------------+
NOM1520 Monitor start initiated Subtask = NOMSTART-009141 .
 Command => ____________________________________________________________________
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        Exit  Flip                                 Wake        Menu
```

     The status should change from Closed to Initializing.

4. Produce sample output in one of Entire Output Management's reserved classes:
   - Run any job which produces output in one of the classes defined as reserved for Entire Output Management.
   - When the job has finished, go to the Monitor Management Screen to wake up the monitor by pressing PF10.

     The Monitor should now start creating reports derived from the Report definition UEX-DEFAULT.

   - Issue the direct command LIST AREP and then enter the line command LI for the Folder #Inbasket to list the Active Reports contained in it. Issue the line command BR to browse the arrived Reports.

3GL Interface Installation/Verification

- 3GL Interface Defaults (1)
- 3GL Interface Defaults (2)
- SYSERR - Display Short Messages
- Report Definition - General Attributes
- Report Definition - 3GL ID (3)

- Using NOMPUT

The following subsection describes how to define a 3GL interface and how to test it with the supplied sample programs.

1. Load a Container File (SYS2) with no records. The output will be stored in this file.
2. Define the 3GL interface defaults. Do this as described in the subsection 3GL Interface Maintenance in the section System Administration of the System Programmer's Documentation:

3GL Interface Defaults (1)

```
 11:40:31             **** Entire Output Management ****            08/08/1999
UserId GHH                 - 3GL Interface Defaults -

3GL Interface 104
  active ..................... Y
  Time Limit ................. __
  Description ................ User-defined Spool (3GL Interface 104)_______

NOM container file
  DBID ....................... 9__
  FNR ........................ 212

Identifying Attributes
  Prompt                 Offset  Length  Order  Generic (*)
   1040_________________   1__     8__     1_      Y
   1041_________________   9__     8__     2_      N
   1042_________________   17_     8__     3_      N
   _____________________   ___     ___     __      _
File identification
   1043_______________     33_     8__

Command => ____________________________________________________________________
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        Exit  Flip  Do    Undo              Attrb             Menu
```

3GL Interface Defaults (2)


```
 11:45:54             **** Entire Output Management ****            08/08/1999
UserId GHH                - 3GL Interface Defaults -

3GL Interface 104
  active ..................... Y
  Description ................ User-defined Spool (3GL Interface 104)_________

Attributes
  Prompt                  Offset  Length
   1045_________________    25_     8__
   1044_________________    41_     50_
   ____________________    ___     ___
   ____________________    ___     ___
   ____________________    ___     ___
   ____________________    ___     ___
   ____________________    ___     ___
   ____________________    ___     ___
   ____________________    ___     ___
   ____________________    ___     ___


 Command => _____________________________________________________________________
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        Exit  Flip  Do    Undo              Ident             Menu
```

3. In SYSERR, enter the prompt texts under the defined numbers (SYSNOMU library). If both the English and the German version of Entire Output Management are being used, you must enter the text for both languages.

SYSERR - Display Short Messages

```
11:55:13             ***** NATURAL SYSERR Utility *****             08/08/1999
                         - Display Short Messages -

Number        Short Message (English)
------------  ------------------------------------------------------------------
SYSNOMU0001   User Id
SYSNOMU0002   Name
SYSNOMU0003   First Name
SYSNOMU0004   Birth date
SYSNOMU1040   User ID
SYSNOMU1041   Terminal ID
SYSNOMU1042   Program
SYSNOMU1043   List-Name
SYSNOMU1044   Description
SYSNOMU1045   List ID
SYSNOMU1234   testprompt




Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
+                 Exit                          +                       Canc
```

4. Create a default Report for your 3GL interface. Enter an asterisk * for the identifying attribute that you defined with Generic=Y in the definition. For further information see the subsection Report Identification for 3GL Interface in the section Defining a Report of the Entire Output Management Reference Documentation.

Report Definition - General Attributes

```
 12:12:40            **** Entire Output Management ****          08/08/1999
User ID GHH       - Report Definition >General Attributes -

Report
   Name ............. USR104-DEFAULT___
   Description ....... Default definition for 3GL interface 104__________
   Type .............. D

Keywords ............. _______________ _______________ _______________

Master Owner ......... MRS_____
Store in NOM DB ...... N

Archive directly ..... N

Retention             Report     Archive   Revive
   Number ............ 1__        ____      ___
   Unit .............. A          _         _
   Calendar .......... ________             ________
   Action ............ P

Command => ____________________________________________________________________
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Add   Exit  Flip  Do    Undo  Ident Print Dist  Separ       Menu
```

Report Definition - 3GL ID (3)

```
 15:13:43            **** Entire Output Management ****          14/06/1999
User ID GHH        - Report Definition >3GL Identification -

Report
   Name ............. USR100-DEFAULT___

3GL Interface 100 Attributes


and
                      ________________________________________________________
                      ________________________________________________________
                      ________________________________________________________
                      ________________________________________________________
                      ________________________________________________________
                      ________________________________________________________
                      ________________________________________________________
                      ________________________________________________________
                      ________________________________________________________
                      ________________________________________________________

Command => ____________________________________________________________________
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        Exit  Flip  Do    Undo                                Menu
```

5. Enter the database ID and file number of your Container File in the module NOMADA. These are simply defaults that can be overwritten in the 3GL program.
6. SHUTDOWN and START the Monitor.
7. Modify the supplied member ASMNOM and assemble the module NOMADA.

To execute the COBOL example, continue with number 13 below.

8. Modify the supplied module NOMEX3GL. O§ATTR must contain the spool attributes (identifying attributes, file identification and other attributes) as defined in the interface. N$SRCTYP must contain the interface number at OPEN. N$DBID and N$FNR must contain the database ID and file number respectively.
9. Assemble the module NOMEX3GL.
10. Modify the member LNKEX3GL and link the sample program.
11. Modify the member RUNEX3GL and run the sample program.
12. Check the 'Monitor Log' to see whether a Report has been created.
13. Modify the supplied module NOMEX3CO. NOMPUT-ATTRIBUTES must contain the spool attributes as defined in the interface. In the subsection BA-INITIALISE, the interface number must be assigned to the field NOMPUT-CB-SOURCE-TYPE, the database number to the field NOMPUT-CB-CONT-DBID and the file number of the Container File to field NOMPUT-CB-CONT-FNR.
14. Modify the member COBNOM and compile the module NOMEX3CO.
15. Modify the member LNKEX3CO and link the sample program.
16. Modify the member RUNEX3CO and run the sample program.
17. Check the 'Monitor Log' to see whether a Report has been created.

Using NOMPUT

Installing Logical NOM Printer in NAF

1. Assemble NOMADA using the following parameters (down to the line MEND):

Parameter	Explanation
AUTOET=1,	ET after nn records
CICS=NO,	CICS environment not required
NATURAL=YES,	NATURAL/ADABAS not required
NATVERS=23, 31	Version of Natural (22/23/31)
NOMDBID=nnnnn,	DBID of NOM system file
NOMFNR=nnnnn	FNR of NOM system file

Note:

NOMADA is the interface between NOMPUT and Adabas and it can be used by:
- batch 3GL programs, in which case CICS=NO and NATURAL=NO must be set;
- 3GL programs running under CICS, in which case CICS=YES and NATURAL=NO must be set;
- Natural Advanced Facilities running in any environment, in which case CICS=NO and NATURAL=YES must be set (so even if NAF is running under CICS you must still set CICS=NO; see Note 2 in the NOMADA description).

2. INCLUDE the following modules to the nucleus where NAFNUC is included (usually the shared nucleus):
   - NOMPUT
   - NOMADA
3. For printing from NAF, define the NAF printers as follows:

```
NTPRINT(m-n),AM=NAF
```

4. Define a logical printer in NAF with type 'NOM'.
5. Edit the NAF defaults in NOM to link NAF spool file and NOM container file and activate the NAF interface with 'Y'.

6. Direct the output of your NATURAL program to NOM using

```
DEFINE PRINTER (n) OUTPUT 'logical NAF printer name'
```

Outputs of this type are stored in the specified NOM container file.

SAP Interface Installation/Verification

- SAP-Spool Defaults Screen
- Report Definition - SAP-Spool ID Screen

The following subsection describes how to define and test the SAP interface.

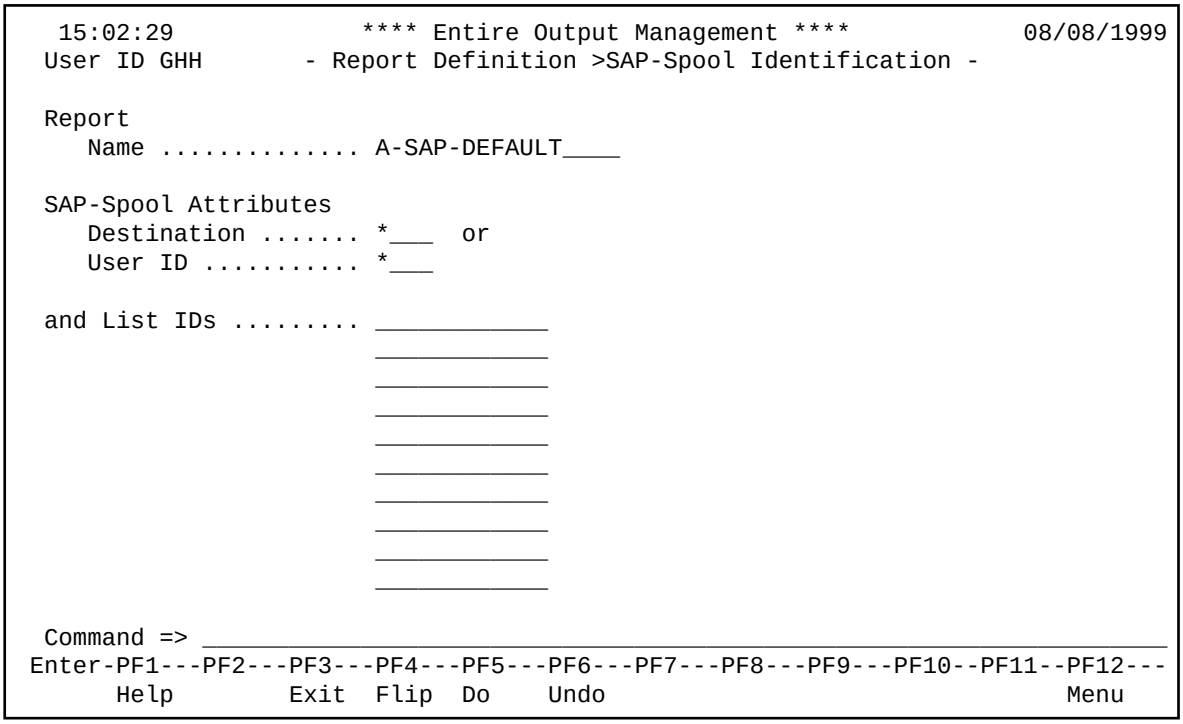
1. Load a Container File (SYS2) with no records. The output will be stored in this file.
2. Define the SAP-Spool interface defaults. Do this as described in the subsection SAP-Spool Defaults in the section System Administration of the System Programmer's Documentation:

SAP-Spool Defaults Screen

```
 14:56:26             **** Entire Output Management ****            08/08/1999
UserId GHH                 - SAP-Spool Defaults -

SAP-Spool interface
  active ..................... Y
  Time Limit ................. 1_

NOM container file
  DBID ....................... 9__
  FNR ........................ 212









 Command => _____________________________________________________________________
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help        Exit  Flip  Do    Undo                                  Menu
```

3. Create a default Report for your SAP interface. Enter an asterisk * for the identifying attribute Destination. For further information see the subsection Report Identification for SAP Spool in the section Defining a Report of the Reference Documentation:

Report Definition - SAP-Spool ID Screen



4. SHUTDOWN and START the Monitor.
5. Enter the database ID and file number of your Container File in the module NOMADA.
6. Assemble the modules NOMADA and NOMSPEI with the appropriate SAP procedure (SAPASML).
7. Assemble the module NOMSPEX with the appropriate SAP procedure (SAPEXAL)
8. Link the programs NOMSPEX, NOMPUT, NOMADA and NOMCOMPR to the program SAPSPWR. For more detailed information, see the SAP documentation.
9. Create a printout in SAP.
10. Check the 'Monitor Log' to see whether a Report has been created.

Natural Advanced Facilities

Instead of printing output from Natural programs in the NAF spool file (FSPOOL), you can route it to a NOM file (SYS2), from which it can be distributed, bundled or separated.

Here you can define whether the NAF/NOM interface is active and from which NAF environments output is to be processed. A separate NOM file can be assigned to each FSPOOL file. However, you can also assign the same NOM file to all FSPOOL files.

To define default parameters for Natural Advanced Facilities

- see Natural Advanced Facilities Defaults in the section System Administration of the System Programmer's Documentation for further information.


```
NOMADA and NOMPUT :
*   ------------------------------------------------------------------------

1. Assemble NOMADA with the appropriate parameters set: :
   NOMADA  ,                                                                X
         AUTOET=1,               ET after nn records                        X
         CICS=NO,                CICS environment not required              X
         NATURAL=YES,            Natural/Adabas not required                X
         NATVERS=23, 31          Version of Natural (22/23/31)              X
         NOMDBID=nnnnn,          DBID of NOM file                           X
         NOMFNR=nnnnn            FNR of NOM file

2. Then link NOMPUT, NOMADA and NOMCOMPR into the NAF nucleus
*
```

